

IN THE FIGURES:

Please amend Figure 5 to correctly indicate the provision of control gates 30a, 30b, and 30c in conformance with the recitation in the specification (at paragraph [0025]) as indicated in the Replacement Sheet showing the amendments as provided attached herewith.

REMARKS

Favorable reconsideration and allowance of the claims of the present application, as amended, is respectfully requested.

In the present Office Action, the Examiner indicated a discrepancy with the Information Disclosure Statement submitted by applicants. The discrepancy indicated by the Examiner is duly noted and the Examiner is respectfully thanked for the clarification.

In the Office Action, the Examiner objected to the drawings as allegedly not indicating in Figure 5, instances of storage cells 30a, 30b and 30c as set forth in the specification description of Figure 5 in paragraph [0025] thereof. Applicants take this opportunity to submit a replacement drawing sheet with proposed amendments to correct Figure 5 so it properly indicates the aforementioned storage cells. The Examiner is requested to remove the objection to the drawings.

Further in the Office Action, the Examiner objected to various instances in the specification due to various informalities, particularly, the alleged lack of clarity in paragraph [0015] and instances of erroneous indications in paragraphs [0016] and [0017] of the description. Applicants, in response, amend instances in the specification as indicated by the Examiner to correct the informalities. The Examiner is respectfully requested to remove the objection to the specification in view of the amendments to the specification provided herein.

Further in the Office Action, the Examiner objected to Claim 1 as comprising a recitation allegedly having insufficient antecedent basis. Applicants in response have amended Claim 1 to correct this deficiency and the Examiner is respectfully requested to remove this objection to Claim 1.

Further in the Office Action, the Examiner rejected Claims 1, 2, 6 and 7 under 35 U.S.C. §102(e) as allegedly being anticipated by U.S. Patent Publication No. 2005/0045936 to

Chang et al. ("Chang") and further rejected Claim 8 under 35 U.S.C. §103(a) as allegedly obvious in view of Chang.

The Examiner did indicate that Claims 3-5 presented allowable subject matter if re-written in independent form to include all of the limitations of the base claim and any intervening claims.

The Examiner further indicated that Claims 15-18 presented allowable subject matter and the Examiner is respectfully thanked for such indication.

In response to the rejection of Claims 1 and 2 in view of Chang, applicants hereby cancel Claim 3 and a portion of amended Claim 2 and incorporate the allowed subject matter wholly in amended independent Claim 1. Claim 1, as amended, now sets forth a DRAM device comprising:

a deep trench capacitor formed in a semiconductor substrate for receiving and storing a voltage;

a storage cell including a vertical pass transistor having source and drain regions formed in a p- well, said drain region formed by a diffusion in said p- well outside said deep trench capacitor adjacent a first buried strap to conduct said voltage to said trench capacitor; and

a control cell for controlling the threshold voltage of the vertical pass transistor according to a voltage of a gate connecting a second buried strap and diffusion region formed in the p-well region, said second buried strap region and diffusion region formed in said p- well region of said control cell being at a lower depth than the first buried strap and diffusion region formed in said p- well region of said storage cell, wherein a voltage applied at a gate connecting said second buried strap and diffusion region controls said threshold voltage of the vertical pass transistor in accordance with a depletion region formed in said p- well region by application of said applied gate voltage.

Note that the Applicants have added a limitation that the deep trench capacitor formed in a semiconductor substrate receives and stores a voltage that is conducted to it via the

first buried strap (additionally note this amendment addresses the lack of antecedent basis objection).

As the Examiner indicated that Claim 3 presented allowable subject matter, its incorporation in Claim 1 clearly renders Claim 1 patentable over Chang. Respectfully, Claim 2 has been retained in part to set forth that the DRAM device wherein the gate voltage comprises a wordline (WL) voltage for controlling access to data stored in said deep trench capacitor via said vertical pass transistor.

In view of the foregoing amendments to Claim 1 and 2, Applicants respectfully submit that amended Claim 1 now presents patentable subject matter and the Examiner is respectfully requested to withdraw the rejection of Claim 1 and the rejections of each of Claims 2, 6 and 7 dependent thereof. The Examiner is additionally requested to withdraw the 35 U.S.C. §103(a) rejection of Claim 8 in view of its dependency on amended Claim 1.

Applicants further take this opportunity to cancel unelected Claims 9-14 and 19-20 as being directed to unelected subject matter.

In view of the foregoing amendments and remarks, this application is now believed to be in condition for allowance, and a Notice of Allowance is respectfully requested. If the Examiner believes a telephone conference might expedite prosecution of this case, it is respectfully requested that he call applicant's attorney at (516) 742-4343.

Respectfully submitted,



Steven Fischman
Registration No. 34,594

SCULLY, SCOTT, MURPHY & PRESSER, P.C.
400 Garden City Plaza, Suite 300
Garden City, New York 11530
(516) 742-4343
SF:gc